Trend Study 11B-12-00

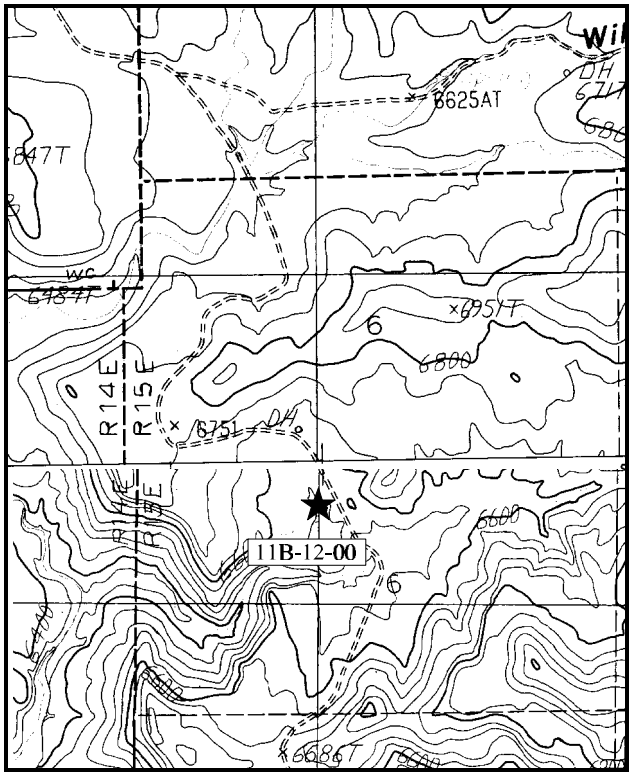
Study site name: Williams Draw . Range type: Mixed Mountain Brush .

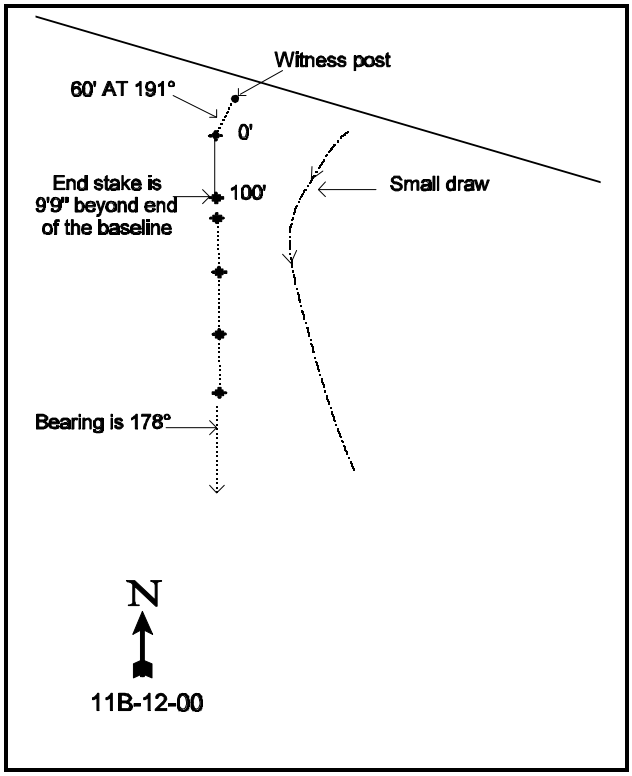
Compass bearing: frequency baseline 168°M.

Footmark (first frame placement) 5 feet, footmarks (frequency belts) line 1 (11 & 95ft), line 2 (34ft), line 3 (59ft), line 4 (71ft).

LOCATION DESCRIPTION

From the Geneva coal mine at the mouth of Horse Canyon, go 0.6 miles past the buildings to a fork. Bear right and proceed 6.85 miles up on top to the Upper Little Park Wash transect. Pass this transect and continue 1.35 miles to the fork at the Little Park Deer Exclosure sign. Continue on the main road for 1.45 miles to the "Williams Draw Spring" sign. Stay right and proceed 1.1 miles to a witness post (green fence post tagged #7836) located down off the right side of the road. From the witness post, walk 60 feet south (191°) down the slope to the start of the baseline, which is marked by a 2-foot tall rebar post. The rebar stake at the end of the baseline is actually 9 feet 9 inches past the 100-foot end of the tape. The first density plot is 49 feet bearing 76° from the baseline end stake.





Map Name: Woodside Diagrammatic Sketch

Township 17S , Range 15E , Section 6

DISCUSSION

Trend Study No. 11B-12 (32-16)

*** This trend study site was not read in 2000. Text from the 1994 report has been retained in this report. Refer to the 1994 "Utah Big Game Trend Studies" report for maps and data tables.

The Williams Draw study is located in a pinyon-Juniper mixed mountain brush type on the southern end of the Little Park area. Aspect is easterly with an elevation of 6,500 feet. The moderately sloping, rolling land drains to the south and east into Little Park Wash. It is surrounded by rocky broken cliffs to the west and north. Water can be found nearby at Williams Draw Spring. While there is no sign of a continuous fire, numerous lightening strikes have hit the large conifers. The pinyon and juniper provides excellent cover for big game. Deer pellet groups are common, especially around the cliffrose. There are almost twice as many rabbit pellet groups as deer on this site. There appears to be little livestock use, not surprising with a total herbaceous cover of less than 1%.

There is a predominance of the pinkish-white sandstone bedrock which creates a rocky and somewhat shallow site. However, there are depressions and cracks in the rocks which provides small areas of moderately deep loose soil with an associated build-up of litter and loose sand underneath the trees and shrubs. The soil is composed mainly of sand and is very shallow in most places. There is good development of cryptogams within protected micro sites. Vegetative cover is low, especially from the herbaceous understory, but bare soil is only at 12%. This situation leads to naturally occurring erosion and sedimentation with the high amounts of slick-rock cover often associated with high intensity summer storms. Except for in the larger washes, erosion doesn't appear to be a factor in plant establishment, as many are growing in the numerous small gullies.

Large old juniper and pinyon characterize this woodland site with respective densities of 246 and 274 trees/acre. Average basal diameter of pinyon is about 5 inches, while that of juniper is just over 9 inches. About 40% of the pinyon's are less than one inch in diameter. There is light utilization of the available juniper. The key browse species for the site is true mountain mahogany, curlleaf mountain mahogany, and cliffrose. The cliffrose is quite vigorous and moderately hedged, but about half of the plants are 7-8 feet tall and new growth is largely unavailable. There has been a severe high lining effect from heavy utilization on some of the plants. Curlleaf mahogany, an evergreen shrub, has been heavily hedged and appears less vigorous than the true mountain mahogany, but this would be expected at this elevation for the curlleaf mountain mahogany does better at higher elevations and the extended drought would be more detrimental to a plant growing on a marginal site. There are also some littleleaf mountain mahogany and vigorous hybrids in the population in the area. There are scattered seedlings of most all these palatable species. Other utilized browse species include green ephedra, snowberry, and to a lesser extent serviceberry. None of these desirable species are particularly abundant, but together the 6 species provide a fair amount of forage and a total density of 860 shrubs/acre. The most commonly encountered key browse species was green ephedra with 480 plants/acre.

Due to the poor soil and moderately dense pinyon-Juniper overstory, the herbaceous component is limited on this site. Grasses are very sparse, with a few individuals of bottlebrush squirreltail, Indian ricegrass and blue grama. They provide very limited forage and little soil protection. A variety of forbs, mainly composites, are found on the site. Forb quadrat frequency is low and the small, low-growing plants provide only minimal forage potential. All the herbaceous species together provide less than one percent of the vegetative cover.

1986 APPARENT TREND ASSESSMENT

Compared to most shallow, rocky, pinyon-juniper sites, this one is especially healthy and diverse for browse species. The several valuable browse species are generally vigorous, although density overall is low. There is

some recruitment for the browse species. Browse utilization appears moderate and sustainable. Therefore, vegetative trend is stable. Although total ground cover is poor, the soil has a well-developed cryptogam cover and litter build-up is increasing. It is reasonable to always expect some erosion on this type of site. Soil trend is stable.

1994 TREND ASSESSMENT

When compared to other slick-rock pinyon-juniper woodlands, 12% bare ground and over 40% litter cover is excellent. Trend for soils is stable. The browse trend is also stable with a good variety of shrub species and most having good numbers of young plants. The percent decadence for most browse species has improved, but is still moderately high for a few species. This site is very limiting with the shallow restricted soils in association with the extended drought for so many years. The herbaceous understory is almost non-existent (<1%). Trend is stable for perennial species, but overall it is poor for herbaceous species.

TREND ASSESSMENT
soil - stable (3)
browse - stable (3)
herbaceous understory - stable for perennial species, but overall poor abundance (3)